--48. An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:

(a) a nucleic acid molecule having the sequence of SEQ ID NO:1;

(b) a nucleic acid molecule encoding an amino acid sequence comprising the sequence of SEQ ID NO:2;

(c) a nucleic acid molecule that hybridizes to either strand of a denatured, double-stranded DNA comprising the nucleic acid sequence of (a) or (b) under conditions of moderate stringency in 50% formamide and 6XSSC, at 42°C with washing conditions of 60°C, 0.5XSSC, 0.1% SDS, wherein said nucleic acid sequence encodes an amino acid sequence having at least 80% identity with SEQ ID NO:2; and

(d) a fragment of any one sequence of (a)-(c) comprising at least 25 contiguous nucleotides.

49. An isolated nucleic acid molecule comprising a polynucleotide that encodes a polypeptide having an amino acid sequence selected from the group consisting of:

(a) amino acids 22-221 of SEQ ID NO:2;

(b) amino acids 1-221 of SEQ ID NO:2;

(c) amino acids 246-365 of SEQ ID NO:2;

(d) amino acids 19-221 of SEQ ID NO:2;

(e) amino acids x-y of SEQ ID NO:2, wherein x is an integer selected from the group consisting of 19 through 22, inclusive, and y is an integer selected from the group consisting of 221 through 224, inclusive;

(f) SEQ ID NO:7; and

(g) SEQ ID NO:8.

50. A recombinant vector that directs the expression of the nucleic acid molecule of claim 48 or claim 49.

51. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

(a) an amino acid sequence encoded by a nucleic acid molecule of claim 1;

(b) amino acids 22-221 of SEQ ID NO:2;

(c) amino acids 1-221 of SEQ ID NO:2;

(d) amino acids 246-365 of SEQ ID NO:2;

(e) amino acids 19-221 of SEQ ID NO:2;

(f) amino acids x-y of SEQ ID NO:2, wherein x is an integer selected from the group consisting of 19 through 22, inclusive, and y is an integer selected from the group consisting of 221 through 224, inclusive;

(g) SEQ ID NO:7; and

(h) SEQ ID NO:8.

52. An isolated antibody that binds to a polypeptide consisting of amino acids 1-365 of SEQ ID NO:2, wherein said antibody binds to an epitope other than that bound by C1.7 mAb.

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53. The isolated antibody according to claim 52, wherein the antibody is a monoclonal antibody.

54. A host cell transfected or transduced with the vector of claim 50.

55. A method for the production of NAIL polypeptide comprising culturing a host cell that has been genetically engineered to express a human NAIL polypeptide under conditions promoting expression.

56. The method of claim 55, further comprising recovering the polypeptide.

57. The method of claim 55, wherein the host cell is a mammalian cell.

58. An immunogenic composition comprising a recombinant or synthetic human NAIL polypeptide and a physiologically acceptable diluent.

59. An isolated DNA fragment of the nucleic acid molecule of SEQ ID NO:1, wherein said fragment encodes a polypeptide that binds CD48, stimulates cell activation through CD48, or inhibits cell activation through NAIL.

60. A polypeptide encoded by the DNA fragment of claim 59.

61. An oligomer comprising at least two monomers of the polypeptide of claim 51 or claim 60.

62. The polypeptide of claim 51 or claim 60, fused to a heterologous polypeptide.

63. A method for detecting CD48 comprising exposing biological material comprising CD48 to a NAIL polypeptide and detecting complexes formed between NAIL polypeptide and CD48.

64. A method for chelating CD48 comprising exposing biological material comprising CD48 to a soluble NAIL polypeptide, whereby CD48 is chelated.

65. A method for inhibiting binding of CD48 to NAIL polypeptide on a cell surface comprising exposing a biological material comprising CD48 and a cell comprising NAIL on the cell surface to a soluble NAIL polypeptide, whereby binding of CD48 to NAIL polypeptide on the cell surface is inhibited.

66. A method of screening for inhibitors of the binding of CD48 to NAIL polypeptide comprising:

(A) exposing a NAIL polypeptide to a CD48 polypeptide in the presence of a test sample;

(B) comparing the level of complexes formed to a level formed in a control sample in the absence of said test compound, wherein a lower level of complexes in the presence of said test sample is indicative of the presence of an inhibitor in said test sample.

67. The method of claim 66, wherein said method is a yeast two-hybrid assay.

68. A method of stimulating B cells comprising exposing a B cell expressing CD48 to a soluble NAIL polypeptide, whereby said B cell is stimulated, wherein said B cell is optionally activated with IL-4, IL-10, or CD40L.

69. The method of claim 68, wherein an immunogen or vaccine is incubated with said cell.

70. A method for stimulating NK cells or cytotoxic T cells comprising exposing an NK cell expressing NAIL polypeptide or a cytotoxic T cell expressing NAIL polypeptide to soluble CD48 polypeptide, whereby said cell is stimulated.